

December 04, 2019



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20913

EXPIRATION DATE: 2021-10-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Tiveni GmbH
Bietigheim, Germany

US AGENT: Tiveni Mergeco Inc, DBA Tiveni
San Mateo, CA

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of prototype lithium ion batteries that have not completed all U.N. tests by cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.

c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.

d. This special permit serves as an approval under Special Provisions A88 and State Variation US 3 of the ICAO TI and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.

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3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180 and the ICAO TI.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(e)(6) and ICAO TI Provision A88 in that prototype batteries have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria and are packaged as specified herein requiring an approval.
5. BASIS: This special permit is based on the application of Tiveni GmbH dated June 27, 2019 submitted in accordance with § 107.105, and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries <i>including lithium ion polymer batteries</i>	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

a. OPERATIONAL CONTROLS:

(1) Only prototype lithium ion batteries may be offered for transportation under the terms of this special permit. Each different battery type must comply with all the conditions of this special permit prior to being offered for transportation.

(2) A battery (with a nominal energy rating of 7,341 Wh) is comprised of four hundred five (405) LG cells (Model Name: INR21700M50U) each with a nominal capacity of 4850 mAh.

(3) The state of charge for prototype lithium ion batteries may exceed not more than 30% when offered for transportation.

(4) Cells and batteries must be protected against short circuiting.

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(5) The battery must be equipped with an effective means of preventing dangerous reverse current flow for cells connected in parallel.

b. Testing Requirements:

(1) All LG lithium ion cells must be of a type that has passed all required tests as specified in the "UN Manual of Tests and Criteria, 6th Revised Edition."

(2) All batteries must have passed the crush test and the axial nail penetration-induced thermal runaway test as described in the application and on file with the Office of Hazardous Materials Safety Approvals and Permits Division.

c. PACKAGING:

(1) Inner packaging: Batteries must be individually packed in inner packagings that completely enclose the batteries and surrounded by non-combustible and non-conductive thermal insulation material to protect against dangerous evolution of heat.

(2) Outer packaging: Batteries must be further packaged in a metal outer packaging that meets Packing Group 1 performance criteria.

(3) Not more than one battery may be packaged within an outer packaging.

(4) The net weight of a battery within a single package must exceed 12 kg but may not exceed 35 kg.

d. MARKING REQUIREMENTS: Each package, and overpack if used, prepared under the provisions of this special permit must be plainly marked with the special permit number: DOT-SP 20913.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

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- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) – "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

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12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SH/TG